

HP Docket No. 10007033-1

REMARKS

Applicants appreciate the Office's review of the present application. In response to the Office Action, the cited references have been reviewed, and the rejections and objections made to the claims by the Examiner have been considered. The claims presently on file in the present application are believed to be patentably distinguishable over the cited references, and therefore allowance of these claims is earnestly solicited and respectfully requested.

Rejections**Rejection Under 35 USC §102**

Claims 1-7, 12-13, 16, 20-21, 23-27, 29-31, 33, 35-37, and 43-44 have been rejected under 35 USC §102(e), as being anticipated by U.S. patent 6,542,173 to Buckley ("Buckley"). Applicants respectfully traverse the rejection and request reconsideration based on features in the claims which are neither disclosed nor suggested in the cited reference.

As to a rejection under §102, "[a]nticipation is established only when a single prior art reference discloses expressly or under the principles of inherence, each and every element of the claimed invention." *RCA Corp. v. Applied Digital Data Systems, Inc.*, (1984, CAFC) 221 U.S.P.Q. 385. The standard for lack of novelty, that is for "anticipation," is one of strict identity. To anticipate a claim, a patent or a single prior art reference must contain all of the essential elements of the particular claims. *Schroeder v. Owens-Corning Fiberglass Corp.*, 514 F.2d 901, 185 U.S.P.Q. 723 (9th Cir. 1975); and *Cool-Fin Elecs. Corp. v. International Elec. Research Corp.*, 491 F.2d 660, 180 U.S.P.Q. 481 (9th Cir. 1974). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

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The rejection of independent claim 1, and its dependent claims 2-7, 12-13, 16, and 43-44 is respectfully traversed at least because the single cited reference does not disclose all of the essential elements of the claims arranged as required by the claims and in as complete detail as in the claims. In this regard, claim 1 recites:

“1. (Previously presented) A method for controlling printing of a document, comprising:
processing the document to form a print job including print data, the print data including drawing commands;
analyzing the drawing commands to build statistical information about content within the print data; and
categorizing the print job using the statistical information according to pre-specified categorization criteria.” (emphasis added)

The Buckley reference discloses systems and methods that “define rendering parameter options for rendering the objects of a document based on an identified document type, irrespective of the object types of that document's objects”, and which “determine a document's predominant object and apply rendering parameter options to that document's objects based on the determined predominant object type” in order to consume fewer computational or time resources during rendering (Abstract; col. 2, lines 31-35; emphasis added). With regard to document objects, the Buckley reference teaches that

“many documents have a large number of independent text objects, with a relatively small number of graphics type objects and/or photo type objects appearing in the document. Thus, determining the object type of each of the independent objects and applying different rendering techniques based on each object's determined object type is unnecessarily resource and time consuming. Rather, for such documents, it is often sufficient to merely identify a document type for that document, with a predetermined set of rendering techniques to be applied to all of the objects within that document based on the determined document type. In other situations, such as printing an HTML document from an accessed website, a user may be interested in one type of object, such as the text objects, the bitmap objects, the photograph objects or the graphics objects, to the exclusion of the other types of objects. For example, the user may be interested in the text of an article on a newspaper website and thus does not care whether the non-text objects within that web page are optimally rendered. In these examples, optimally rendering each of the various independent objects within the document may unnecessarily consume valuable computational and/or time resources in order to print at an optimized quality level objects whose quality the user is indifferent to.” (col. 2, lines 12-35; emphasis added)

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With regard to the operation of the system disclosed by the Buckley reference, and more particularly with regard to the order or sequence in which the particular steps of the method of the Buckley reference are performed,

"once the user has defined one or more document types and has opened a document that the user wishes to print, the user accesses the print driver graphical user interface for the currently selected one of the available printers. The user can then select an autodetermination mode. In the autodetermination mode, the currently opened document that the user wishes to print is analyzed to determine the one of the previously defined document types to be used to print the various objects in the currently opened document.

In particular, in various exemplary embodiments of the systems, methods and graphical user interfaces of this invention, the currently opened document is statistically analyzed to identify at least one predominant object type in the currently opened document. If a single predominant object type is determined, the document type corresponding to the object type is selected as the document type to be used to render the currently opened document. ...

Once ... the document type to be used to render the currently opened document has been automatically determined, the user inputs a signal to the printer driver through the graphical user interface, usually by selecting the 'OK' button, that the printer driver is to output the appropriate data and control signals to the currently selected printer to cause that currently selected printer to render the currently opened document using the rendering parameter options of the ... determined document type.

In particular, the printer driver for the currently selected printer, which is stored in the printer driver memory portion 134, accesses, under control of the processor 120, the appropriate rendering parameter options for the selected document type that is stored in the document-type definition memory portion 132. Then, under control of the processor 120, the printer driver stored in the printer driver memory portion 134 communicates with the currently opened document that is stored, along with the appropriate application program for that document, in the application memory portion 136. The printer driver, using the defined rendering parameter options of the selected document type stored in the document-type definition memory portion 132, converts the currently opened document into printer data and printer control commands and outputs the printer data and printer control commands through the input/output interface 110, the links 302 and 312 and the print server 300 to the currently selected printer 310." (col. 7, line 37 – col. 8, line 35; emphasis added)

Thus, the Buckley reference discloses the following sequence or order of operations. First – before any printer data and printer control commands for the document have been generated – the currently opened document is statistically analyzed to identify a predominant object type. It is noted that, since no printer data and control commands for the document have

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yet been generated, the statistical analysis must necessarily be performed on data that is part of the currently opened document, such as, for example, the source code of the document. Second, a document type for the currently opened document is determined based on the statistical analysis. In particular, if the document has a single predominant object type, then the document type corresponding to the predominant object type is selected as the document type to be used to render the currently opened document. In other words, the document is categorized according to the predominant object type contained in the document. Third, the printer driver, using the defined rendering parameter options of the selected document type, converts the currently opened document into printer data and printer control commands. It is noted that the printer data and printer control commands, according to the Buckley reference, are generated after the document has been statistically analyzed and categorized.

However, the above-described operation of the Buckley reference is completely different from the operation of Applicants' invention as recited in Applicants' claim 1. First, in Applicant' claim 1, the document is processed to form a print job including print data, where the print data includes drawing commands. Second, the drawing commands are analyzed to build statistical information about content within the print data. Third, using the statistical information, the print job is categorized according to pre-specified categorization criteria. In other words, according to Applicants' claim 1, the print data and drawing commands are generated before the statistical analysis and categorization are performed. Only in this manner can the analysis build statistical information about content within the print data.

From the comments in the Response to Arguments section (Office Action, p.2), it is respectfully believed that the Office did not fully appreciate the above-described differences in the order and sequence of operations between Applicants' recited invention and the Buckley reference.

In addition, Applicants respectfully disagree with the Office's position that the "drawing commands" recited in claim 1 do not further distinguish over the Buckley reference. With regard to the drawing commands, the Office states that "it is some command or set of commands in the

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document that identifies the object as, for example, text or an image" (Office Action, p.2; emphasis added). To whatever extent, if any, that the Office may be correct in stating that such commands in the document may identify an object, such commands are not drawing commands as recited in Applicants' claim 1 for at least two reasons. First, claim 1 recites that the drawing commands are included in print data of a print job that is formed by processing the document, rather than being included in the document itself. Second, any drawing commands that may be present in the printer data or printer control commands generated by the Buckley reference cannot be used for any statistically analysis and categorization operations performed by the Buckley reference because the printer data and printer control commands are not generated until after the document has been statistically analyzed and categorized.

Accordingly, the novel features of the present invention are not anticipated by the Buckley reference in that the above-referenced essential elements, arranged as required by the claims and recited in as complete detail as in the claim, is absent from the reference. Therefore, the rejection is improper at least for that reason and should be withdrawn.

Independent claim 23 recites limitations similar to those of claim 1, discussed above.

Claim 23 recites:

"23. (Previously presented) In a system for electronically monitoring the contents of a print job generated from a document, a computer-readable medium having computer-executable instructions for performing a process on a computer, the process comprising:

processing the document to form the print job including print data, the print data including drawing commands;

statistically analyzing the print data to form object type percentages using the drawing commands;

classifying the print job using the statistical analysis and according to pre-specified categorization criteria; and

storing the classification in a log file and using the classification from the log file for examination and for building, enhancing and verifying future classification matches." (emphasis added)

For similar reasons as explained heretofore with regard to claim 1, any statistical analysis

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and classification operations disclosed by the Buckley reference are performed before the document is processed to form the print job, not after the document is processed to form the print job as recited in claim 23. In addition, the Buckley reference does not perform any statistical analysis of the print data, since any statistical analysis disclosed by the Buckley reference is performed before the print data is generated.

The novel features of the present invention are not anticipated by the Buckley reference in that at least one essential element, arranged as required by the claim and in as complete detail as in the claim, is absent from the reference. Therefore, the rejection of independent claim 23, and its corresponding dependent claims 24-26, is improper at least for this reason and should be withdrawn.

The rejection of independent claim 33, and its dependent claim 35, is respectfully traversed at least because the single cited reference does not disclose all of the essential elements of the claims arranged as required by the claims and in as complete detail as in the claims. In this regard, claim 33 recites:

“33. (Original) A method for managing print jobs of documents containing at least one page, comprising:

collecting drawing commands for a given page;
collapsing the collected drawing commands into pre-determined categories; and
classifying the print job using the pre-determined classifications.” (emphasis added)

For similar reasons as discussed heretofore with reference to claim 1, the Buckley reference does not classify (i.e. determine the predominant object type of) a print job based on drawing commands. As explained heretofore, the drawing commands are not generated according to the Buckley reference until after the predominant object type has already been determined. Thus it would be impossible for the print job of the Buckley reference to be classified based on non-existent drawing commands.

The novel features of the present invention are not anticipated by the Buckley reference in that the above-referenced essential elements, arranged as required by the claims and recited in as

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complete detail as in the claim, is absent from the reference. Therefore, the rejection is improper at least for that reason and should be withdrawn.

Independent claim 27 recites limitations similar to those of claim 33, discussed above. Therefore, for similar reasons as explained heretofore with regard to claim 33, the novel features of the present invention are not anticipated by the Buckley reference in that at least one essential element, arranged as required by the claim and in as complete detail as in the claim, is absent from the reference. Therefore, the rejection of independent claim 27 is improper at least for this reason and should be withdrawn.

Dependent claim 43, and its sub-dependent claim 44, are further patentably distinguishable over the cited references for at least an additional reason. Claim 43 recites:

"43. (Previously presented) The method of claim 1, wherein the analyzing includes sorting the drawing commands on each page of the print job by command type, and grouping the sorted drawing commands into predetermined object types so as to identify a percentage of the drawing commands in the print job that is associated with each of the predetermined object types." (emphasis added)

As explained above with reference to claim 1, the Buckley reference cannot analyze drawing commands, because the drawing commands are not generated by the application program (i.e. as part of generating the printer data) until after the analysis has been completed. As a result, the Buckley reference cannot disclose that the sorted drawing commands are grouped into predetermined object types. The portion of the Buckley reference cited by the Office (col. 8, lines 2-7) discloses only objects; there is no disclosure of the drawing commands being interrelated with the objects as is recited in claim 43. This is insufficient because the reference must disclose all of the limitations of the claim.

Therefore, the rejection of claims 43-44 is improper and should be withdrawn at least for this additional reason.

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Inappropriateness of Finality of the Next Office Action

Applicants respectfully note that the rejections under §102 of dependent claims 20-21, 29-31, and 36-37 are deficient on their face. Claims 20-21 and 36-37 depend from independent claim 17, which stands rejected under §103(a). Similarly, claims 29-31 depend from independent claim 28, which also stands rejected under §103(a).

It is improper on its face to reject a dependent claim under §102 when its base claim was rejected under §103(a).

In the absence of conditions such as misjoinder or fundamental defects in the application (conditions which do not exist here), 37 C.F.R. §1.104(b) requires that the "examiner's action will be complete as to all matters". Because there is no rejection of dependent claims 20-21, 29-31, and 36-37 that is not deficient on its face, Applicants believe that the present Office Action is not complete. Accordingly, Applicants respectfully request that, if all claims are not deemed allowable in response to the present amendment, the next subsequent Office Action be made non-final.

Rejection Under 35USC §103

Claims 8, 17-19, 28, 32, and 34 have been rejected under 35 USC §103(a), as being unpatentable over U.S. patent 6,542,173 to Buckley ("Buckley"). Applicants respectfully traverse the rejection and request reconsideration.

As to a rejection under §103(a), the U.S. Patent and Trademark Office ("USPTO") has the burden under §103 to establish a *prima facie* case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Manual of Patent Examining Procedure (MPEP) section 2143 discusses the requirements of a *prima facie* case for obviousness. That section provides as follows:

To establish a *prima facie* case of obviousness, three basic criteria

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must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must be found in the prior art, and not based on applicant's disclosure.

The rejection of independent claim 17, and its dependent claims 18-19, is respectfully traversed for at least the following reasons. Claim 17 recites:

"17. (Previously presented) A system for managing printing operations on a computer, comprising:

an application program that generates drawing commands for printing a document;
a statistical module that collects the drawing commands and collapses the collected drawing commands into pre-determined classifications; and

a filtering module coupled to the statistical module that filters the pre-determined classifications using pre specified category criteria and categorizes the print job into at least one predefined print job category." (emphasis added)

The Office has not established a *prima facie* case of obviousness at least because the applied references do not teach or suggest all of Applicant's claim limitations.

In rejecting claim 17, the Office states that "[a]lthough Buckley does not call the items in his invention a statistical and a filtering module, the functions are essentially the same" (Office Action, p.10). Applicants respectfully disagree, in that the functions are not essentially the same.

In particular, and for similar reasons as explained heretofore with reference to claim 1, the Buckley reference does not teach or suggest collecting and collapsing drawing commands in order to categorize a print job (i.e. to determine the predominant object type). As recited in claim 17, the application program generates the drawing commands before the print job is categorized, and the generated drawing commands are then used to perform the categorization. However, as explained heretofore with reference to claim 1, the Buckley reference teaches that the drawing commands are not generated until after the predominant object type (i.e. the category) has already

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been determined.

Therefore, for the reasons discussed herein, the applied references do not teach or suggest all of Applicant's claim limitations.

Furthermore, the Office has not established a *prima facie* case of obviousness at least because there is no suggestion or motivation to modify the reference. The Office does not state a motivation for modifying the Buckley reference. Moreover, the Buckley reference itself teaches away from the modification. If the Buckley reference were to be modified such that no predominant object type is identified before the currently opened document is converted into printer data and printer control commands, then the various text, graphics, and photographic objects in the document would necessarily each be rendered according to the optimal rendering technique associated with the corresponding object type, which would be "unnecessarily resource and time consuming" (col. 2, lines 12-35).

Applicants respectfully traverse the Office's assertion that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the features recited in the claims of Applicants' invention. Such could be possible only in hindsight and in light of Applicants' teachings. Therefore, the rejection is improper at least for that reason and should be withdrawn.

Independent claim 28 recites limitations similar to those of claim 17, discussed above. Claim 28 recites:

"28. (Previously presented) A printing system working in a computer environment, comprising:

an application program that generates print data for a print job, the print data including drawing commands;

a printer that receives the print data for printing the print jobs;

a software printer driver coupled to the printer and application program for analyzing the drawing commands to build statistical information about content within the print data; and

a filter module coupled to the software printer driver for categorizing the print job using the statistical information according to pre-specified categorization criteria." (emphasis added)

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For similar reasons as explained heretofore with regard to claim 17, the features of the present invention are not taught or suggested by the cited references in that the features of analyzing drawing commands within print data generated by an application program in order to categorize a print job are neither taught nor suggested by the Buckley reference. In addition, there is no motivation to modify the reference, also for similar reasons as explained with regard to claim 17.

Applicants respectfully traverse the Office's assertion that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the features recited in the claims of Applicants' invention. Such could be possible only in hindsight and in light of Applicants' teachings. Therefore, the rejection of independent claim 28, and its corresponding dependent claim 32, is improper at least for that reason and should be withdrawn.

The rejection of dependent claim 8 is respectfully traversed based on the dependence of this claim from independent claim 1, whose reasons for allowability over the Buckley reference have been discussed heretofore. Any motivation to modify the reference is improper in that it impermissibly uses the Applicants' disclosure as a blueprint or in hindsight for the rejection. Therefore, the rejection is improper at least for these reasons and should be withdrawn.

The rejection of dependent claim 34 is respectfully traversed based on the dependence of this claim from independent claim 33, whose reasons for allowability over the Buckley reference have been discussed heretofore. The alleged motivation provided by the Office - "to enable a printer to print optimally" (Office Action, p.11) - is so broad, vague, and conclusory that it impermissibly uses the Applicants' disclosure as a blueprint or in hindsight for the rejection. Therefore, the rejection is improper at least for these reasons and should be withdrawn.

Claims 14 and 22 have been rejected under 35 USC §103 (a), as being unpatentable over U.S. patent 6,542,173 to Buckley ("Buckley") in view of U.S. patent 5,323,393 to Barrett

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("Barrett"). Applicants respectfully traverse the rejection and request reconsideration at least based on the dependence of these claims on independent claims 1 and 17 respectively, whose reasons for allowability over the Buckley reference have been discussed heretofore and against which the Barrett reference has not been cited. Any motivation to combine or modify the references is improper in that it impermissibly uses the Applicants' disclosure as a blueprint or in hindsight for the rejection. Therefore, the rejection is improper at least for these reasons and should be withdrawn.

Claims 38-39 have been rejected under 35 USC §103 (a), as being unpatentable over U.S. patent 6,542,173 to Buckley ("Buckley") in view of U.S. patent 6,144,835 to Inoue ("Inoue"). Applicants respectfully traverse the rejection and request reconsideration at least based on the dependence of these claims on independent claim 1, whose reasons for allowability over the Buckley reference have been discussed heretofore and against which the Inoue reference has not been cited. With regard to motivation, the Office states that "Buckley and Inoue are combinable because both are in the art of identification and categorization of images" (Office Action, p.14). Applicants respectfully believe that the Inoue reference is not directed to the identification and categorization of images. Any motivation to combine or modify the references is improper in that it impermissibly uses the Applicants' disclosure as a blueprint or in hindsight for the rejection. Therefore, the rejection is improper at least for these reasons and should be withdrawn.

Claim 40 has been rejected under 35 USC §103 (a), as being unpatentable over U.S. patent 6,542,173 to Buckley ("Buckley") in view of Applicants' admitted prior art in the background of the invention. Applicants respectfully traverse the rejection and request reconsideration at least based on the dependence of these claims on independent claim 1, whose reasons for allowability over the Buckley reference have been discussed heretofore and against which the Inoue reference has not been cited. Therefore, the rejection is improper at least for

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these reasons and should be withdrawn.

Claims 41-42 have been rejected under 35 USC §103 (a), as being unpatentable over U.S. patent 6,542,173 to Buckley ("Buckley") in view of U.S. patent 6,144,835 to Bennett et al. ("Bennett"). Applicants respectfully traverse the rejection and request reconsideration at least based on the dependence of these claims on independent claim 1, whose reasons for allowability over the Buckley reference have been discussed heretofore and against which the Inoue reference has not been cited. Any motivation to combine or modify the references is improper in that it impermissibly uses the Applicants' disclosure as a blueprint or in hindsight for the rejection. Therefore, the rejection is improper at least for these reasons and should be withdrawn.

Conclusion

Attorney for Applicant(s) has reviewed each one of the cited references made of record and not relied upon, and believes that the claims presently on file in the subject application patentably distinguish thereover, either taken alone or in combination with one another.

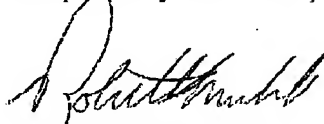
Therefore, all claims presently on file in the subject application are in condition for immediate allowance, and such action is respectfully requested. If it is felt for any reason that direct communication with Applicant's attorney would serve to advance prosecution of this case to finality, the Examiner is invited to call the undersigned Robert C. Sismilich, Esq. at the below-listed telephone number.

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Respectfully submitted,



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